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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,137	01/19/2006	Victor Paul Eliu	HC/1-22926/A/PCT	9022
	7590 01/19/2007 LTY CHEMICALS CC	EXAMINER		
PATENT DEPARTMENT 540 WHITE PLAINS RD P O BOX 2005 TARRYTOWN, NY 10591-9005			POWERS, FIONA	
			ART UNIT	PAPER NUMBER
			1626	
SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MONTHS 01/19/2007		01/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	<del></del>	Application No.	Applicant(s)	
Office Action Summary		10/565,137	ELIU ET AL.	
		Examiner	Art Unit	
		Fiona T. Powers	1626	
Period fo	The MAILING DATE of this communication app or Reply		orrespondence address	
A SH WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Properiod for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  16(a). In no event, however, may a reply be tim  rill apply and will expire SIX (6) MONTHS from 0  cause the application to become ABANDONED	l. ely filed the mailing date of this communication. O (35 U.S.C. § 133).	
Status				
	Responsive to communication(s) filed on This action is FINAL. 2b) This Since this application is in condition for allowant closed in accordance with the practice under E	action is non-final. ace except for formal matters, pro		
Dispositi	ion of Claims			
5)⊠ 6)⊠ 7)⊠ 8)□ Applicati 9)□ 10)□	Claim(s) 1-9 and 11-19 is/are pending in the ap 4a) Of the above claim(s) is/are withdraw Claim(s) 1-4,7,11-16,18 and 19 is/are allowed. Claim(s) 5,6,8 and 9 is/are rejected. Claim(s) 17 is/are objected to. Claim(s) are subject to restriction and/or on Papers The specification is objected to by the Examiner The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction The oath or declaration is objected to by the Examiner	r election requirement.  r.  epted or b) □ objected to by the Edrawing(s) be held in abeyance. See on is required if the drawing(s) is objected to by the drawing(s)	37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).	
Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.				
2) 🔲 Notic 3) 🔯 Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO/SB/08) · No(s)/Mail Date <u>7/17/06</u> .	4) Interview Summary ( Paper No(s)/Mail Dat 5) Notice of Informal Pa 6) Other:	e	

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Receipt is acknowledged of the preliminary amendment filed January 19, 2006 and the information disclosure statement filed July 17, 2006, which have been entered in the file.

Claim 17 is objected to because of the following informalities: in line 2 of claim 17, the phrase "or strands" should be inserted after "hair" to be consistent with the preamble. Appropriate correction is required.

Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 5 is not a further limitation of claim 1 because for each of the dyes listed in claim 5, the group that corresponds to  $R_3$  in claim 1 is hydrogen. However,  $R_3$  in claim 1 cannot be hydrogen. Also, in formula (16) of claim 5, the group that corresponds to  $R_2$  is cyclohexyl but  $R_2$  in claim 1 cannot be cyclohexyl. This objection can be overcome by making claim 5 independent.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Kuhlthau (US 4294756), cited by applicants.

The reference discloses the claimed dye of the formula (3). Note Example 33 in column 8, lines 41 to 51.

Claims 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Abdallah et al. (US 4079130) or Kuhlthau (US 4294756), cited by applicants or Japanese Patent 56-053,658, cited.

The references disclose the claimed dye of the formula (21) and the claimed process for its preparation. Note column 3, Table I, Example 3 of Abdallah et al.; Example 33, column 8, lines 17 to 26 of Kuhlthau; and page 2, the first entry in the table at the top of the right-hand column.

Claims 6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Baumann et al. (US 3216995), cited or Baumann et al. (GB 885046) or Kuhlthau (GB 2029439), cited by applicants.

The references disclose the claimed dye of the formula (18) where  $R_1$  is methyl and  $R_3$  and  $R_7$  are methoxy or halide and the claimed process for its preparation. Note claim 5 of Baumann et al. US 3216995; Example 3 and the third compound listed in the

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table on page 5 of Baumann et al. GB 885046); and Example 1, page 3, lines 18 to 21 of Kuhlthau GB 2029439.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kulthau (US 4294756).

## Determination of the scope and content of the prior art (MPEP §2141.01)

The reference discloses a homolog of the claimed dye of the formula (17) that is used for the dyeing of polyacrylonitrile.

Note Example 33 in column 8, lines 41 to 51.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The dye in column 8, lines 41 to 51 differs from the

claimed dye of the formula (17) in that a hydrogen atom replaces

the methyl group attached to the amino group.

## Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

However, it has been held that it is obvious to replace a hydrogen atom with a lower alkyl group and vice versa. See In re Hoeksema, 158 USPQ 598. One of ordinary skill in the art would have been motivated to prepare the homolog of the dye

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disclosed in the reference with the expectation that it would also be useful for the dyeing of polyacrylonitrile. The claimed dye would have been rendered obvious by the homolog of the reference in the absence of any unobvious or unexpected property.

Claim 1 to 4, 7, 11 to 16, 18 and 19 are allowed.

The references made of record and not relied upon show the state of the art.

Claims 1, 2, 4, 7, 11 and 15 are allowable over the prior art of record because  $R_3$  in these claims cannot be hydrogen. However, if applicants amend claim 1 and 7 so that the definition of  $R_3$  includes hydrogen, rejection of claims 1, 2, 4, 7, 11 and 15 over the prior art of record would be appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fiona T. Powers whose telephone number is 571-272-0702. The examiner can normally be reached on Monday - Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fiona T. Powers
Primary Examiner
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ftp January 12, 2007